



Develop a client-server application with the following functionalities:

1. Implement a single-threaded server to handle incoming client requests sequentially, ensuring simplicity and straightforward operation.
2. Enable bidirectional communication between the client and server, allowing users to exchange messages in real-time.
3. Allow clients to request the contents of a specific directory from the server, facilitating efficient retrieval of directory information.
4. Enable the server to respond to client requests by sending a comprehensive list of files and folders contained within the specified directory, ensuring clarity and completeness of the directory structure.
5. Provide clients with the capability to request specific files from the server, enhancing flexibility and targeted file retrieval.
6. Implement robust file transfer functionality on the server side to promptly fulfill client requests by transmitting the requested files securely and efficiently to the client.
7. Bring the project to the practical lab sessions to demonstrate its functionality and receive hands-on guidance and support from the instructor.
8. Evaluation of this project will be based on a scale of 10, with points allocated for various aspects such as functionality, code quality, and adherence to project requirements.
9. During the exam, you will be required to add **two additional features to the project**. These features will be worth an additional 10 points, providing an opportunity to demonstrate your understanding of network programming concepts and extend the functionality of the application beyond the initial requirements.
10. "Incorporate video streaming functionality into your project, and you will receive an additional 2 points bonus."